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AUTHOR Hanna, Glenda
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ABSTRACT

This paper discusses some of the common barriers confronting outdoor and experiential education teachers and presents strategies for surmounting them. The identified concerns and suggested solutions were obtained from in-depth open-ended interviews conducted with 10 outdoor education/environmental education consultants and teachers in Alberta (Canada). Existing curriculum can be used to develop a support system including teachers, students, and parents to counteract administrative barriers such as withdrawal of funding and lack of support. Teachers need to take advantage of team teaching or personal training to increase their experience and confidence in implementing outdoor education programs. In addition, teachers should design a risk-management plan for their program to deal with safety and liability concerns of outdoor education programs. Creative scheduling and staffing for field trips can help to resolve time conflicts during traditional class periods. Areas and sites for field trips should match a particular program's objectives with the experience of the teacher and students. Available resources such as transportation and equipment should be considered prior to planning an outdoor education program. Finally, budget issues were among the most common obstacles encountered by teachers in outdoor education programming. To resolve the problem, the costs should be kept low initially and fundraising can be conducted through grant writing and student activities. Overcoming barriers means commitment, organization, and persistence on the part of teachers who deliver outdoor and environmental education programs. (LP)

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JUMPING DEADFALL: OVERCOMING BARRIERS TO IMPLEMENTING OUTDOOR AND ENVIRONMENTAL EDUCATION

Glenda Hanna, Ph.D.
Department of Physical Education
and Sport Studies
University of Alberta
Edmonton, Alberta T6G 2H9
(403) 492-2311 • FAX (403) 492-2364

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Across North America, educators are confronting a "back to basics" wave designed to focus them and their students on identified L.O.'s (learning outcomes) and reduce time devoted to perceived extraneous and frivolous experiential components and processes. As resources decline, outdoor and environmental education programs will survive only where teachers are dedicated to experiential education, where they are innovative and creative in their programming, and yes, sometimes where they can be subversive enough in dealing with administrative realities.

To those of us recognizing the need for reform *towards* rather than *away* from experiential education, this declining philosophical and practical support is particularly frustrating. To those uninitiated into the personal and transformational powers of adventure and environmental education, the chances of overcoming the hurdles to implementing a new experiential program must seem particularly onerous. In responding to this philosophical "controversy" at the '88 AEE Conference, Conrad eloquently illustrated the fundamental difference in advocating experiential education:

We'd be better off with less time spent with books and more time spent with nature, less time in our boxes and more time in the wilderness, with things that are real, not images, not sound bytes; to relate to and commune with flowers and streams and animals, as equals, as part of the same dimensions of being... What we need is to be free to dream and imagine and create - to create our own knowledge and discover our own wisdom and forge our own truth, not because *nothing* can be learned from books or from television, but because *too much* can be learned from them: the reductive truths of others that serve to define us and control us and ultimately diminish us.

(Conrad, 1988)

If teachers, the conduit between the administrators and students, are to choose to interpret and present the curriculum in an experiential fashion and to work to include environmental and outdoor education, they must have the knowledge and skills to overcome the barriers which may impede their way to this goal. This paper will share some of the common barriers currently confronting outdoor and experiential education teachers and present some techniques and tactics for resolving them. The identified concerns and suggested solutions were obtained from in-depth open-ended interviews conducted with ten outdoor education/environmental education consultants and teachers in Alberta. Each of the common barriers has been related to an environmental hazard or peril we may encounter on an outdoor trip. Each environmental barrier or hazard can be overcome through specific strategies and tactics. Similarly, one or more strategies tactics or techniques can be adopted or adapted to successfully negotiate the programmatic problem spot en route to an enjoyable, fulfilling educational experience. The selected barriers and strategies for negotiation are as follows:

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Senior Administrative Support

The teacher interested in initiating or continuing an Outdoor and/or Environmental Education program may run into **deadfall** blocking the trail. With an already heavy load to bear (short class periods, large class size, little preparation time, etc.) teachers may encounter old paradigm thinking administrators (i.e., didactic oriented, "back to the basics") who may throw all sorts of obstacles (e.g. withdrawing funding and other support, requiring additional training and/or certification for outdoor activity leadership, etc.).

Different strategies and tactics may be applied to overcome this deadfall barrier. Ideally, one wants to remove the administrative barrier so the path will be clear for those who follow. What is typically required is a collaborative, synergistic effort involving teachers, consultants, students and parents. By bringing together people interested in implementing or maintaining a sound program, the obstacles may be removed by administrators. In the case of environmental education, it is important to make strong and real curricular connections (e.g. social studies, language arts, mathematics, etc.) and to use other teachers as support colleagues. In other words, it is important to integrate environmental concepts, issues and investigations across the curriculum.

In some cases, a separate Outdoor and Environmental Education or Outdoor Education course of studies may be recognized by the board. For example, in Alberta, a solid complementary course of studies in Environmental and Outdoor Education exists (Alberta Education, 1991) and it is expected that it be offered in each school eventually. If a teacher or teachers champion this course of studies (grade 7 - 9) in their school, it should be accepted. This particular Alberta program is excellent because it is interdisciplinary and holistic and may, in fact, prove helpful as a school planning model.

In sum, deadfall tossed in the teachers path by administrators can be handled through the use of existing curriculum and a support system including other teachers, students and parents. If they all lift together, there isn't much they can't move.

Teacher Comfort and Competence

Perhaps the biggest bear to getting programs going or expanding them to include environmental and adventure education components involves the limited training, experience and confidence of the teacher(s) who must deliver the program. Few are as comfortable sharing a tree poem as using those same trees to set up a ropes course (or vice versa). Outdoor leadership also suggests personal competence in activity pursuits, (e.g. canoeing, cross-country skiing, climbing, etc.) requisite to teaching these skills and leading others safely in the natural environment.

In confronting this bear, it is important for the teacher to recognize the type of bear (e.g. black vs. grizzly - comfort vs. competence) because different strategies may apply to dealing with each. For example, most bear experts advocate dealing aggressively with a black bear, but submissively with a grizzly. Teacher's 'comfort' bears may be successfully dealt with by recognizing their real or perceived limits and aggressively seeking out opportunities to learn and lead outdoor and environmental content and processes (in local, relatively safe situations before high risk remote locations).

The 'competence' bears requires sincere recognition and acceptance and careful handling through team teaching and/or personal training. Because environmental and outdoor education are cross-

stroke combinations to turn their craft away from the rock and power past it, only then correcting their course again.

Many teachers have expressed frustration over the reality of their having to work overtime (after school and on week-ends) to get an Outdoor and/or Environmental Education program going. Most Environmental and Outdoor Education teachers are willing to sacrifice some of their noon hours and/or after school time to stretch the timeslot available to allow for longer field trip opportunities, at least occasionally. An important manoeuvre involves securing sufficient administrative and collegial support (other teachers) to allow field trips during school time (wholly, or at least substantially). Part of the answer lies in working toward more interdisciplinary programming, where other teachers bring along their relevant content and process on outtrips. It is also most advisable to plan with other colleagues to minimize lab/field trip interruption of regular classes. For example, some teachers try to minimize their impact by taking large blocks of students from a few other classes on a particular trip rather than fewer students from a larger number of classes. They also work with their colleagues in drawing up a school event schedule to ensure trips don't conflict with other planned special events.

One teacher described the need for field trips well, saying, "The school is the laboratory from which to analyze data collected in the field. If the group isn't in the field often, it isn't engaged in experiential learning." While it is ideal to have frequent field trips designed into an Outdoor/Environmental program, some schools do get by with only one or two during the term and a single climax outtrip of 4-7 days (or even longer) at the end of the school year. A few schools have gone the opposite way, where a whole semester is spent off campus, travelling and learning interdisciplinary content.

As one can see, there are certainly a variety of strategies which can be employed to dealing with potential scheduling problems. The key lies in anticipating this rock, consciously planning a course of action, and communicating and cooperating to manoeuvre the craft around the obstacle.

Resources (Curriculum Materials)

When we picture the proliferation of books, texts, thesis, articles, handouts, workbooks and other written resources available which pertain to Environmental and/or Outdoor Education, we can see a big logjam; an undifferentiated, seemingly randomly arranged jumble of material. Of course, swimming under logjams isn't recommended. The unlucky kayaker who ends up in the drink above a logjam without sufficient time to escape around it should aggressively swim at the logjam and climb up on it as much as possible, grabbing onto a solid log.

The teacher looking for written resources for themselves and/or their students should similarly grab on, attack the logjam of available materials, and select what they want from the pile. Talking to other teachers and/or consultants in the board interested in the subject area can save time, as can reviewing relevant bibliographies and reading lists available. Some boards have resource centres holding materials for Environmental and Outdoor Education. Teachers are free to visit these centres, peruse the displays and materials, photocopy or borrow materials and order class supplies as needed. Some schools allow teachers to select a few items per year for the school library which are contained in a teacher PD section. Finally, where gaps exist, teachers may choose to slowly collect their lesson plans, class handouts and other materials in a course manual for reuse and updating annually. Some programs have extensive support materials prepared specifically for them. The Alberta Education Environmental and Outdoor Education course of studies, for example, has a number of excellent current teacher and student resource materials associated with it (Alberta

disciplinary subjects/approaches, hopefully one or more partners can be found within the school to help complement strengths and weaknesses. Additional training opportunities are available through board specialist consultants (e.g., Professional Development days), universities and outside agencies. For example, the University of Alberta offers two graduate level courses (Adventure Education Leadership and Outdoor Environmental Leadership) which can be taken concurrently over three weeks in the summer. The program not only prepares or refreshes teachers interested in delivering either or both Outdoor and Environmental Education (grade 7 - 12) but also serves as a great springboard for teachers interested in pursuing a post-graduate degree (Hanna, 1991). Many other agencies and institutions (e.g. Audobon, Outward Bound, NOLS, Blue Lake Centre, etc.) offer skill and leadership development and programs, directed at helping individuals develop the skills needed to lead others in and for the outdoors.

Safety/Liability

Dealing with safety and liability concerns is often like crossing a glacier. One knows there are crevasses present, but one can't always tell exactly which snow bridges will hold and which ones won't. Typically, dealing with this very real mountain hazard involves awareness of its presence, travelling in groups vs. solo, roping up and having the knowledge, skills and equipment to execute a rescue if someone breaks through.

Similarly, when leading field trips and expeditions each program component (supervision, instruction, route planning and navigation, etc.) must be planned with safety in mind. The Canadian Association for Health, Physical Education and Recreation's (CAHPER) *Safety Oriented Guidelines for Outdoor Leadership and Programming* (Hanna, 1986) and the AEE's *Safety Practices in Adventure Programming* (Priest and Dixon, 1991) provide useful information in helping teachers design a risk management plan for their program.

Understanding of common outdoor program risks and conscious planning and preparation (personal, student, equipment, etc.) to reduce the potential consequences of these risks will result in a minimal chance of being taken to court (falling through a crevasse) and of being found legally responsible (not being able to get out of the crevasse) (Hanna, 1991b). Good risk management programs include procedures for regular program implementation, as well as rescue, first aid and other accident follow-up procedures.

Timetabling

While substantial foundational work in Outdoor and Environmental Education can be conducted indoors or on the school grounds, environmental investigations and outdoor explorations must progress to sites or routes involving natural terrain (i.e., the real world) for transformation to occur. While one can learn the basic strokes and manoeuvres involved in river canoeing completely on a lake, it is only when paddling in the current and manoeuvring around rocks that the paddler gains confidence in his/her skills. Traditional half-hour to hour long class periods are generally inadequate to allow for travel to off-campus sites and/or for experiential processes to be adequately developed. A minimum of one half day/week is recommended.

Creative scheduling and staffing can overcome this timetabling barrier, just as confident, well timed stroke combinations can lead the canoeists successfully around a mid channel rock. As we know, there is more than one way to manoeuvre around a rock in the river. The obstruction may be sideslipped using a draw-pry or pry-draw combination, or the paddlers may use any of a variety of

class's needs.

Some rural and urban schools or at least boards own their own buses which may be booked for outdoor and environmental field trips. Generally, the students must pay on a per trip basis (to cover operating costs) so it is advantageous to take double classes in order to keep the cost per student for each trip as low as possible.

Where feasible, professional drivers should be employed to do the driving on longer trips. A teacher who has been in the backcountry with a group of students for five days may not be the best person to get behind the wheel on the last night to drive everyone back home.

Finally, many schools still rely on parent volunteers to drive children/youth to and from outtrips. This has great advantages in that the parents learn more about the program and build stronger relationships with their kids and the school. If a decision has been made to use non-professional parent drivers the teacher should promote safety (e.g. by encouraging vehicle safety checks, travelling in convoys, etc.).

As with our river crossing analogy, the decision to not cross the river (i.e. not go on the trip) must always be kept as an alternative if safe transport is not available. More injury accidents occur on the road to and from an outtrip area or site than occur during any other program elements (Hanna, 1991b).

Equipment

Securing adequate equipment, be it canoes or microscopes, is often expensive and difficult for programs with a large number of students to outfit. But, like the group of cross country skiers confronted with a potential avalanche slope, if not enough appropriate gear is carried, the real risk of attempting an outtrip rises beyond an acceptable level very quickly. In the skiing example, in addition to skiing and camping gear, snow study kits, avalanche transceivers (beacons) shovels and the knowledge and skill to use them is considered essential to travelling in mountainous terrain in winter.

Obviously, it would be ideal if every school had its own stock of gear, and securing such is not impossible. Funds for the purchase, repair and maintenance of Outdoor/Environmental equipment can be procured from the school budget (an item or two a year if need be), fundraising (e.g. a bake sale to earn money for sets of cross country skis for the school), creative grantsmanship by the teacher/administrator, or the charging of user fees to the students ultimately benefitting from the equipment.

In many cases, a board will own a pool of equipment which teachers can book (e.g. a fleet of canoes and related gear). This is often advantageous in that each school doesn't have to carry all the capital related to the gear, to face the ongoing time and supply costs to maintain and/or repair the gear, or the security and space concerns related to storing the equipment when it is not in use. Similarly, this is one of the great benefits of using Outdoor/Environmental centres; they purchase and maintain adequate stocks of good quality equipment and charge only a minimal user fee/student for rental during visits to the centre.

Finally, the teacher working in an economically depressed area needs to know that countless activities and field trips can be run with little or no equipment. In fact, lessons in voluntary simplicity taught through quality programs unreliant on technology may be some of the most powerful experiential messages we can deliver. A low-tech survival camping program (e.g. tarp

Education, 1991). A gap still exists somewhat in the availability of interdisciplinary resources, illustrating ways and means of integrating Environmental and Outdoor Education.

Terrain/Sites

Most schools aren't located in areas readily amenable to pursuing all of the activities and experiential learning processes teachers may wish to expose their students to. And as an individual on a survival trip in the forest must learn to differentiate edible, medicinal or otherwise useful flora from **poisonous plants**, so must the Environmental and Outdoor Education instructor choose carefully to minimize the potential for facilitating miseducative experiences, (e.g. excessively expensive, time wasting, physically hazardous, etc.).

Wherever possible, students should be exposed to good natural areas and sites near their school and home. Small local parks and ravines (even schoolyards) often offer substantial opportunities for learning and data collection. In Edmonton, three schools are building "green classrooms." In partnerships with local high school students, relatively sterile schoolyards are being transformed. Trees are planted, gardens created, ponds installed and logs, rocks and other natural items are landscaped for the purpose of creating a sharing area and focus laboratory.

Many outdoor skills (e.g. pitching tents, lighting stoves, doing initiatives and other group games, orienteering, etc.) can be taught and learned on the school grounds. Some teachers bring in materials and teach wood cutting and splitting, natural crafts and other skills on-site.

With longer lab/field trip periods, classes may travel to more distant wildland areas, cultural sites or outdoor centres. Not long ago, many boards owned and operated their own camps or centres (e.g. Peel Board in Ontario). Unfortunately, with the economic downturn, most have eliminated this capital and operating burden. Many still use privatized centres (e.g. Calgary Board of Education) and this trend will likely increase in the future as more schools initiate programs.

In sum, the beauty of experiential education, like the beauty of a forest, lies in its diversity. Our natives taught us many uses for the plants in our forests. By picking and choosing areas and sites which best match a particular program's objectives, the experience of the teacher and students, we can avoid those which offer limited benefit and perhaps even harm and select those of maximum potential.

Transportation

Visitation to external areas, sites and centres suggests the need for transportation decisions to be made. In looking at this decision, one can consider the hiker who must make a **river crossing**. As the strategy and technique for crossing the stream (and even the decision of whether it is safe to cross) will vary depending on the width, depth and speed of the river, decisions regarding program transportation need to be made in consideration of time and distance concerns.

Where desired lab/field trip sites are close to the school, students should walk (< 1 km) or cycle (1-5 km). This physical activity is a positive reinforcement of active living and commitment to "green" transportation. Teachers should set a positive role model there.

For more distant forays, where vehicles are required, safety and expense become primary criteria. Use of mass transit (local bus or subway) is inexpensive where scheduling and bus routes fit the

shelters, open fire cooking, etc.) may yield as high or even higher levels of perceived competence and relationship with the land as a "minimal impact" (high-tech) one where students leave feeling more distant from nature because of their reliance on the extensive gear they carry (e.g. ultralight alpine packs, tents, stoves, etc.).

Of course, it is understood from our cross-country ski example that the variety of environments (e.g. mountain, rivers, etc.) and travel mediums (e.g. cross-country skiing, canoeing, rock climbing, etc.) which can be explored and experienced will be limited by the availability of appropriate equipment.

Budget

While identified last here, budget issues are among the most common obstacles raised by teachers and consultants interested in Environmental and Outdoor Education programming. It sometimes feels like paddling down a swift, winding foothill stream. Along the banks, especially on the outside of turns where the river has eroded into the soil supporting the trees growing there, there are sweepers (undercut trees) hanging out over or even fully laying in the river. Sweepers are especially hazardous to canoeists because they may upset a canoe and capture the canoeist(s) in the tentacles of the tree branches.

Outdoor/Environment Education programming can involve so many diverse costs (e.g. equipment, written resources, transportation, site/centre fees, food and supplies, substitute teachers, etc.) that it can feel that once you get into the program stream all of these budget sweepers begin hanging over your proposed courses, each trying to tip you.

Teachers are free to apply the advice suggested in the last section; keep it cheap, initially at least. As described, numerous concepts, skills and activities can be taught in and around the school, requiring minimal equipment.

Fundraising through grant writing by the teacher and through student activities (e.g. popcorn sales at school team homes games, raffles, chocolate bar sales, etc.) cannot only yield program revenues, but also help teach the students about the value of their equipment and/or program and increase their appreciation of it. Fundraising is also typically energy intensive, requiring and fostering teamwork and cooperation.

In sum, the existence of numerous barriers to Outdoor and Environmental Education programming suggests commitment, organization, and persistence on the part of teachers delivering these highly experiential programs. The presence of many quality programs in a variety of settings demonstrates that teachers and boards are able to overcome these obstacles in a number of creative ways. This paper illustrates some of these strategies and techniques for dealing with these barriers on the way to an exciting, satisfying program. As has been demonstrated, the decision making processes are not all that different than the ones we use to overcome many of the natural obstacles we recognize, and in some cases welcome, in our wildland environments.

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